

**Aleksandra Hauke-Lopes\*, Milena Ratajczak-Mrozek\*, Marcin Wiczerzycki\***

*\*Poznań University of Economics and Business, Poland*

## **NETWORK RELATIONSHIPS AND VALUE APPROPRIATION DURING THE FORMATION OF A NEW DIGITIZED COMPANY**

*Work-in-progress*

### **ABSTRACT**

**The aim of the paper:** The aim of the paper is to identify how value is created and appropriated through network relationships in the digitized environment and how this impacts the formation of a new digitized company operating as a multi-sided platform.

**Research gap:** The existing literature presents some studies of value creation and appropriation in network relationships among digitized companies within the multi-sided platform. However the research on that aspect is rather scarce and does not focus on the value appropriation through network relationships from the perspective of the process of a new, digitized company formation.

**Methodology:** The paper adopts the case study method. Results come from in-depth interviews with a digitized company that formed a multi-sided platform for confectionary shops and final B2B customers as well as B2C consumers.

**Findings:** The digitization enabled the analyzed company to create value as the effect of possessed know-how, existing and new relationships, some of them connected via multi-sided platform. Thanks to the analysis of a new company formation we were able to observe and define this process through the lens of value creation and appropriation by network actors. Also, specific elements of the digital environment impacting value creation and appropriation were observed, particularly the need for convenience on the part of consumer, related to the on-demand culture brought about by the digitization.

**Key words:** value appropriation, network relationships, digitization.

### **INTRODUCTION**

New technologies affect (in a positive or negative way) the management and strategic decisions of companies while creating new development opportunities for business entities. As a consequence, companies driven by technological revolution in order to survive and create value are forced to introduce modifications in internal processes as well as in relationships with other entities to meet the challenges of digital transformation. Digitization, understood as “the adoption of Internet-connected digital technologies and applications by companies” (Pagani & Pardo, 2017, p. 185), strongly influences the strategies of companies and has a significant impact on the processes taking place both internally in companies and in business networks. Digitization impacts companies’ resources, internal and external processes, and therefore induces changes in the interaction patterns among network actors in the business networks. It leads also to the empowerment of consumers, equipping them with new methods of influencing companies, as well as leading to increased expectations. This creates additional pressure on companies that are forced to look for new ways to create value to meet (or exceed) the needs of consumers. In order to do so cooperation on business-to-business (B2B) market is needed.

Value, understood as both financial and non-financial outcomes of the cooperation among business actors, “is generated by combining and recombining resources, coordinating activities and connecting individuals within and across businesses” (Ford, Mattsson, & Snehota, 2017, p. 30). We can notice a constant increase of research on value creation taking a network approach (e.g. Baraldi & Lind, 2017; Corsaro & Snehota, 2010). The value creation

and appropriation processes may be affected by changes in B2B relationships which in turn are caused by digitization. As emphasized by Pagani & Pardo (2017) digitization impacts B2B exchanges, however, current research focuses mostly on the transformations brought by the digital technologies to business-to-customer (B2C) exchanges. In addition, as already underlined, digitization affects the operational activities and resources of companies. One example of such affected processes is the formation of a new company.

The impact of digitization on value creation and appropriation is important for companies that operate as multi-sided business platforms. Still, as Zhao, von Delft, Morgan-Thomas and Buck (in press) underline, “in recent decades, multi-sided platform business models have become an important avenue for value creation and capture, but the phenomenon itself remains under-theorized”. Thus, the aim of the paper is to identify how value is created and appropriated through network relationships in the digitized environment and how this influences the formation of a new digitized company operating as a multi-sided platform.

To analyze the problem, the case study of the digitized company operating on a B2B and B2C market in Poland was used. Polish digital market was chosen as it is developing at a high pace. At the same time it is very competitive and only third of new companies survive first five years of operations (Statistics Poland, 2015). The analysis enabled to observe and identify the process of a new company formation through the lens of value creation and appropriation by network actors. Also, specific elements of the digital environment impacting value creation and appropriation within the multi-sided platform relationships were observed.

## **LITERATURE REVIEW**

### **The concept of value**

Value plays a key role in business operations (Corsaro & Snehota, 2010; Ulaga & Eggert, 2006) and its creation “is the *raison d’être* of a business relationship” (Skarmas, Saridakis, & Leonidou, 2018, p. 280). It is subjective and is different for each network actor (Corsaro & Snehota, 2010). There is no single and coherent understanding of value, which in the existing research has been analyzed both through financial, that is in monetary terms (Anderson & Narus, 1998) and non-financial perspective (e.g. supplier know-how, personal interaction) (Ulaga & Eggert, 2006). Creating value is not possible by only using the resources of one company and relationships with different actors, including suppliers and customers, are needed (Corsaro, 2019). When analyzing value by taking the network approach, additional elements impacting value creation come into view. These include “circumstances external to the relationships (e.g. the level of interconnectedness among network entities, the number of inter-firm ties, the authority in the contact portfolio, and the interaction among relational drivers)” (Corsaro & Snehota, 2010). Biggemann and Buttle (2005, p. 1) propose four different forms of value created in business relationships. These include: personal value, linked to non-economic satisfaction, financial value associated with economic satisfaction, knowledge value related with mutual learning and strategic value linked to long-term planning.

Since the value creation is a process that involves cooperation of network actors and may result in diverse outcomes, Corsaro, Ramos, Henneberg, and Naudé (2012, p. 60) propose that these value outcomes should be “qualified in terms of cost efficiency (technical/operational) and/or in terms of effectiveness (innovation and development), as well as the associated sacrifices of these benefits”. Other additional aspects of value outcomes include e.g. the supplier’s ability in problem resolution, buyer-seller compatibility development of know-how, improvement of core-competences and informal relationships (Eggert, Ulaga, & Schultz, 2006).

Along with the value creation, important aspect is value appropriation by various network actors. Value appropriation may be defined as “activities that aim at capturing the

value created in cooperative interactions” (Chou & Zolkiewski, 2018, p. 26). This relates to the problem of taking over outcomes that have been already created by other network actors without the direct involvement of the focal company (Chou & Zolkiewski, 2018). However it is problematic to define how the value created should be distributed among the network actors evenly (Baraldi & Lind, 2017). Value creation and value appropriation are two interrelated processes – companies try to appropriate the value that has been jointly created in a cooperative relationship. The amount of the value that may be appropriated by each actor in a dyad depends not only on the overall value created by these actors, but also their bargaining power or network positions (Corsaro, 2019).

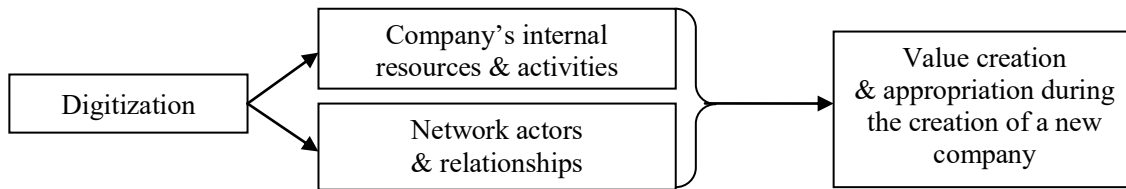
### **Value and digitization – concept and conceptual framework**

While research on digitization and value creation in B2B relationships is gaining increased attention, the empirical research in this field is still scarce. Within the network approach the impact of digitization is analyzed taking into account value creation in a service exchange occurring on e-marketplaces (Standing & Standing, 2014), as well as the collective goal formation aimed at value creation and innovation (Matinheikki, Pesonen, Artto, & Peltokorpi, 2017).

Digitization changes the way companies function – it allows them to transcend the boundaries of space (and to lesser extent – time) (Castells, 2009), providing them with an access to a larger, sometimes downright global market. Mediating interactions with customers through digital means also makes it easier for the companies to gather information about their partners and analyze their behavior. At the same time, said behavior is altered by the process of digitization taking place in society. Particularly important in this regard is the expectance of convenience, or the so called on-demand culture (Epps, Govers, & Go, 2009), making consumers more willing to turn to online shops, due to substantially lower time investment in comparison to the physical ones (Jiang, Jiang, & Liu, 2011).

The multisided platforms, defined as “networks that bring together two or more distinct types of users and facilitate transactions among them” (Zhao, von Delft, Morgan-Thomas, & Buck, in press) allow to leverage the value of digital-based relationships and interactions (Wei, Geiger, & Vize, 2019). However, as research on managing innovation in digital platform ecosystem has shown, value creation and appropriation processes also encounter tensions (Wang & Miller, 2020). These tensions relate to the problem of the amount of appropriated value by each of the network actor based on their input and expectations. This is important as actors in the business network have at the same time common but also individual goals among which one of the most important is to obtain as much value as it is needed e.g. to develop their operations. In some situations, thus created value can even take a form of an entirely new company.

Following the presented discussion, our conceptual framework, as it is shown in Figure 1, is based on the assumption that the digitization impacts (i) company’s internal resources and activities, (ii) network actors (including B2B customers and B2C consumers) and their expectations. This impacts the value creation and appropriation processes as well as the formation of a new company. All these elements are influenced by the digitization processes and as a result impact the amount of value created and appropriated during a new company formation. We assume that the digitization may be seen as a challenge since it constantly obliges network actors to change the existing cooperation modes and modify the internal and external processes. However it may also help company to develop and to improve the activities which result in the value creation. We assume therefore that digitization impacts relationships, activities and resources but also may have influence on the amount of created and appropriated value.



**Figure 1: Conceptual framework**

## METHOD

The paper adopts the case study method (Thomas, 2011) of Cakes – digitized company that formed a multi-sided platform for confectionary shops and final B2B customers and B2C consumers. The case study method is recommended for studying network relationships, as well as for research answering the question of “how” dependencies occur (Welch & Paavilainen-Mäntymäki, 2014).

As a multi-sided platform, Cakes brings together different groups of actors, like confectionary shops, final B2B customers and B2C consumers. The paper and research is a work-in-progress and is based on five interviews conducted with four interviewees representing two focal companies (one interviewee was interviewed more than once). The interviews took place in October 2016 and first half of 2020 in Poland. Due to this time gap between interviews we were able to analyze changes that appeared in the network configuration. It is even more important since in 2016 the interview concerned another company named Flowers, a unit of a multinational company, which provides a platform where consumers may order flower bouquets. These orders are then transmitted, via IT system, to the nearest flower shop from where they are send to final consumers. The interviewed manager left Flowers company and set up a new one called Cakes. These changes enabled us to analyze the process of value creation and appropriation during a new company formation through the lenses of digitization impact and changes of relationships. The conducted analysis covers the years 2015-2020. Additionally secondary data regarding the company’s operations is used, including its webpage, official materials published in internet, consumers’ and B2B customers’ reports as well as map of a network relationships drawn by the focal company’s owner. We adopted an abductive research approach (Dubois & Gadde, 2002). The collected information was analyzed by means of the constant comparative method (Thomas, 2011). In order to obtain the comprehensive understanding, in the paper value was analyzed using both financial and non-financial perspective.

## CASE ANALYSIS

Presented analysis concerns the company Cakes. Its history is related to the history of another company Flowers. Company Flowers has been present in Poland since 1995. It is a digitized company which is a multi-sided platform for final B2B customers and B2C consumers and flower shops. On the online platform customers are ordering bouquets, orders are transmitted via internal IT system to independent florists from where the bouquets are transported to final consumer. This allows customers to order bouquet e.g. as a gift even if a recipient lives in a different city. As a spontaneous idea, on occasion of Father’s Day Flowers offered cakes as a supplement to flower bouquets. The response from customers was positive and it was an impulse for the interviewed managers to set up a new company – Cakes. The performed activities in Cakes were very similar to the ones performed in Flowers in terms of being an intermediary for orders between confectionary shops and final B2B customers and B2C consumers. Cakes, with the help of software provider with whom Cakes’ owners worked in Flowers, created an online multi-sided platform where customers may order cakes and the order is transmitted to the confectionery located near the delivery address. The recipes of

cakes are standardized so as the customers get the very similar taste and look of cake regardless where it has been ordered.

In the process of company formation, Cakes used the acquired knowledge and experience of running a business, especially what concerns the specificity of a digitized company in terms of business model (service provider for delivering products), and know-how on IT solutions – such as data fingerprinting techniques allowing customer behavior analysis, designing e-commerce platforms and B2B order management systems. As the interviewed manager admitted, without the experience, know-how on running a digitized company it could not have been possible to create Cakes. Another important aspect brought up by the interviewed manager was possessed relationships coming from the cooperation in Flowers network. These formal as well as informal relationships with network actors (like the co-owner, software provider) were helpful in establishing a new company. However despite possessed experience, know-how and continued relationships with former Flower network actors, Cakes encountered problems. Polish confectionary customers are used to ordering cakes in a traditional way in the confectionary shops even though they have to appear in the confectionary shops twice (to make the order and to get the cake). Another problem was linked with the production cycle which takes more time than in Flowers, while bouquets were easily and quick to prepare.

Company Cakes despite possessed know-how on operating a digitized company and the existing relationships, had to start relationships with new actors from confectionary industry. They were crucial in further development of the new company. One of the very first relationships was started with a local confectionary shop in Poznań. This relationship enabled Cakes to test and improve the IT infrastructure as well as run tests on recipes to be offered on the platform for customers. The relationship was not continued because the confectionary shop was closed some time after the relationship's initiation. After gaining the know-how and experience in a new industry from the first relationship, Cakes started to search new confectionary shops for further cooperation. The partners were selected on the basis of the possessed facilities, possible production capacity and the willingness and possibility to follow the standards (of production, recipes, delivery). In the first year after starting the business, Cakes was cooperating with 20 confectionaries in Poland. At the beginning the cooperation with confectionaries encountered problems. Due to buying behaviors of Polish consumers, confectionary shops gather orders in a traditional way, in shops – the electronic orders (made via confectionaries' web page forms) are very rare. This created a big challenge for Cakes during the relationships initiation since Cakes had to convince confectioneries to use the platform instead of paper forms to collect orders.

Cakes also had to develop relationships with both confectionary shops as well as with final B2B and B2C customers. What concerns the relationships with confectionary shops, they are focused on the recipes co-development, maintaining the same product standard (similar ingredients, the same design of cakes) and keeping the delivery time. The relationships with final B2B customers (companies ordering cakes online e.g. for their subsidiaries in different cities) are based on ordering cakes for special occasions, like the company's achievements and delivering them to all customers' units while the relationships with final B2C consumers (individuals ordering cakes online e.g. for their family members in other cities) are mainly based on following the orders and inviting consumers to finalize those orders, that have been abandoned.

## **DISCUSSION AND CONCLUSIONS**

The co-owners of Cakes indicated that the company created and appropriated value both in financial and non-financial terms. What concerns financial terms, the company value was defined as taking into account the monetary value of EBIT (Earnings Before Interest and

Taxes) and DCF (Discounted Cash Flows). In non-financial terms, the co-owner of Cakes perceived important value in the possibility of product development (creation of new recipes together with confectionery shops).

When analyzing the process of new company formation through the lens of value creation and appropriation we may see that crucial were both former relationships with former network actors that existed before company formation and new relationships which were formed with new network actors during the new company formation process.

As far as former relationships are concerned Cakes created (and later appropriated) new value thanks to these relationships. First of all, initial inquiries from B2B and B2C Flower customers (on additional products) were the impulse for the new business development and a new value creation. Second of all, based on these former relationships and know-how originating from them, Cakes was able to create new IT solutions and the platform suitable for confectionery shops. Also although Cakes followed the similar business model as Flowers (as an online service provider) it had to modify it according to new industry it was operating in.

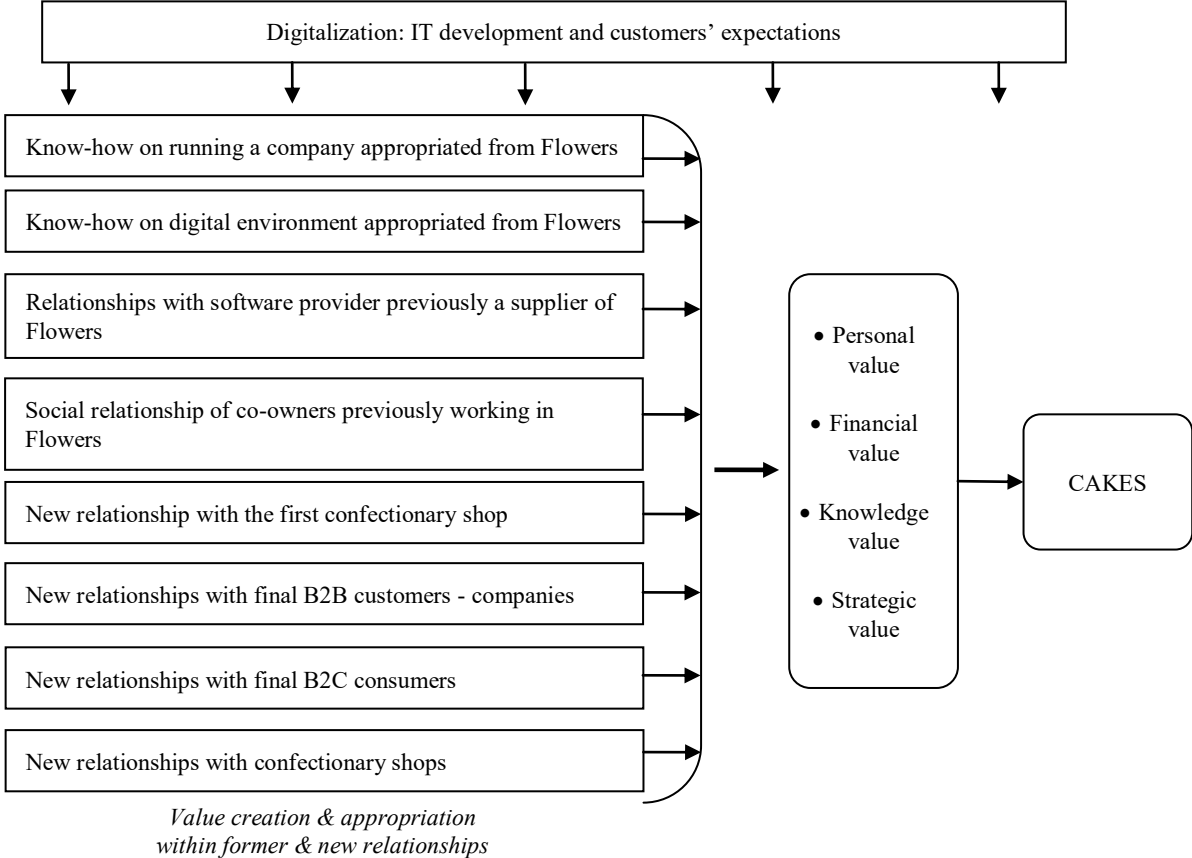
In the process of a new company formation also new relationships (at the beginning with the first confectionery shop, with other confectionery shops, and with the final B2B customers and B2C consumers) were important as a significant source of value. First of all during the new company formation within new relationships new value was created. This includes the development of new cake recipes together with confectionery shops. Another value creation activity, crucial for new company formation and development, was the creation of new customers database, including initiation of relationships with both B2C consumers and B2B customers. This process of convincing customers to use the multi-sided platform was disruptive since it was changing the existing habits of customers used to order cakes traditionally and not online. The company succeeded and in effect was able to appropriate and create value from these relationships – customers were buying more products and also new customers were interested in Cakes' offer. It is important to note that both B2B and B2C customers proved to be indispensable in the value creation and appropriation process. While Cakes admitted, that it prefers the former due to the magnitude of their orders, their timing is too volatile and unpredictable for Cakes to focus on them exclusively. Therefore different types of customers provide different type of value from the Cakes' perspective – with B2B ones providing better profit margin, while B2C consumers being a source of stability.

As far as new relationships are concerned Cakes managed also to appropriate knowledge from the first confectionery shop they started the cooperation with. It enabled testing the IT system, platform solutions and development of these activities. It also allowed to acquire know-how on that specific industry and consumers' tastes. The experience, know-how and initial recipes were important factors for the company's operations. Cakes appropriated also know-how stemming from former business relationship with software provider as well as it appropriated value in the form of social relationship as both co-owners of Cakes and its important managers originated from Flowers company.

It is worth noting, that the value appropriation by other actors in the network could potentially lead to some problems for Cakes – for instance, some of the bigger confectionery shops partnered with Cakes could use their newly gained knowledge of IT systems in order to create a platform of their own. Cakes tries to account for this possibility by licensing their separate e-commerce platform to those partners, that prefer to run their own online confectionery shops. Similarly, both Cakes and Flowers could expand their respective offers to include the products from their partner's portfolios. However, that would rid them of the advantage of specialization.

It may be concluded that all four forms of value proposed by Biggemann and Buttler (2005) were observed in the process of value creation and appropriation during the new company formation. As the result of repeated orders made by B2B customers and B2C

consumers, personal value was created. The growing market share may be seen as the financial value while the market knowledge and idea generation with confectionary shops is regarded as knowledge value. Finally, the strategic value was the effect of access to extended network, e.g. of Flowers company or the creation of new customers database. As Figure 2 shows, value creation and appropriation coming from relationships already existing in Flowers' network and from newly established network relationships enabled the new company formation.



**Figure 2: Value creation and appropriation during a new company formation - research results**

The analysed company operates as a platform where the overall activities linked with the ordering process are under Cakes' control (Gawer & Cusumano, 2008). The digitization allows platform actors a much tighter and complex cooperation, regardless of the physical distance between them. It was the digital tools, like e-platform of B2B cooperation and centralized online shop that vastly improved the value creation and appropriation capabilities of Flowers company. Once established, it was relatively easy to copy this business model along with utilized technologies to different sector and build Cakes company around it. Cakes also profits from changes in consumer behavior and preferences brought about by the digitization – particularly their focus on convenience and preference towards having the purchased items delivered directly to their doorstep.

Our findings suggest that due to possessed know-how on running a company, know-how on a digital environment and the existing and new relationships, Cakes could create and appropriate value during the new company formation process.

## BIBLIOGRAPHY

- Anderson, J. C., & Narus, J. A. (1998). Business Marketing: Understand What Customers Value. *Harvard Business Review*, 5–15.
- Baraldi, E., & Lind, J. (2017). Value Measuring and Value Appropriation in Business Networks. *No Business Is an Island*, 47–66.
- Biggemann, S., & Buttle, F. (2005). Conceptualising business-to-business relationship value. In *Proceedings of the 21st IMP-Conference*
- Castells, M. (2009). *Communication power*. Oxford: OxfordUniversity Press.
- Chou, H.-H., & Zolkiewski, J. (2018). Coopetition and value creation and appropriation: The role of interdependencies, tensions and harmony. *Industrial Marketing Management*, 70, 25–33.
- Corsaro, D. (2019). Capturing the broader picture of value co-creation management. *European Management Journal*, 37(1), 99–116.
- Corsaro, D., Ramos, C., Henneberg, S. C., & Naudé, P. (2012). The impact of network configurations on value constellations in business markets — The case of an innovation network. *Industrial Marketing Management*, 41, 54–67.
- Corsaro, D., & Snehota, I. (2010). Searching for Relationship Value in Business Markets: Are We Missing Something? *Industrial Marketing Management*, 39(6), 986–995.
- Dubois, A., & Gadde, L.-E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Reserach*, 55, 553–560.
- Eggert, A., Ulaga, W., & Schultz, F. (2006). Value creation in the relationship life cycle: A quasi-longitudinal analysis. *Industrial Marketing Management*, 35(1), 20–27.
- Epps, A., Govers, R., & Go, F. M. (2009). A history of internet purchasing: Suggestions for web/based entrepreneurs and SMEs. *Journal of Research in Marketing and Entrepreneurship*, 10(1), 4–18.
- Ford, D., Mattsson, L.-G., & Snehota, I. (2017). Management in the Interactive Business World. In *No Business is an Island* (pp. 27–45). Emerald Publishing Limited.
- Gawer, A., & Cusumano, M. A. (2008). How companies become platform leaders. *MIT Sloan Management Review*, 49(2), 28–35.
- Jiang, L., Jiang, N., & Liu, S. (2011). Consumer perceptions of e-service convenience: An exploratory study. *Procedia Environmental Sciences*, 11(PART A), 406–410.
- Matinheikki, J., Pesonen, T., Artto, K., & Peltokorpi, A. (2017). New value creation in business networks: The role of collective action in constructing system-level goals. *Industrial Marketing Management*, 67, 122–133.
- Pagani, M., & Pardo, C. (2017). The impact of digital technology on relationships in a business network. *Industrial Marketing Management*, 67, 185–192.
- Skarmeeas, D., Saridakis, C., & Leonidou, C. N. (2018). Examining relationship value in cross-border business relationships: A comparison between correlational and configurational approaches. *Journal of Business Research*, 89, 280–286.
- Standing, S., & Standing, C. (2014). Service value exchange in B2B electronic marketplaces. *Journal of Business and Industrial Marketing*, 30(6), 723–732.
- Statistics Poland. (2015). *Creation and operation conditions, development prospects of Polish enterprises established in the years 2009–2013*. Warsaw.
- Thomas, G. (2011). *How to do Your Case Study. A guide for students & researchers*. London: Sage.
- Ulaga, W., & Eggert, A. (2006). Relationship value and relationship quality: Broadening the nomological network of business-to-business relationships. *European Journal of Marketing*, 40(3/4), 311–327.
- Wang, R. D., & Miller, C. D. (2020). Complementors' engagement in an ecosystem: A study of publishers' e-book offerings on Amazon Kindle. *Strategic Management Journal*, 41(1), 3–26.
- Wei, R., Geiger, S., & Vize, R. (2019). A platform approach in solution business: How platform openness can be used to control solution networks. *Industrial Marketing Management*, 83, 251–265.
- Welch, C., & Paavilainen-Mäntymäki, E. (2014). Putting Process (Back) In: Research on the Internationalization Process of the Firm. *International Journal of Management Reviews*, 16(1), 2–23.
- Zhao, Y., von Delft, S., Morgan-Thomas, A., & Buck, T. (in press). The evolution of platform business models: Exploring competitive battles in the world of platforms. *Long Range Planning*.